

Name: _____

at1110paper_practice_test (v34)

1. Expand the following expression into standard form.

$$(5x + 6)(4x - 9)$$

$$20x^2 - 45x + 24x - 54$$

$$20x^2 - 21x - 54$$

2. Solve the equation.

$$(7x - 6)(4x + 9) = 0$$

$$x = \frac{6}{7} \quad x = \frac{-9}{4}$$

3. Factor the expression.

$$16x^2 - 9$$

$$(4x + 3)(4x - 3)$$

4. Expand the following expression into standard form.

$$(7x - 5)^2$$

$$49x^2 - 35x - 35x + 25$$

$$49x^2 - 70x + 25$$

5. Solve the equation with factoring by grouping.

$$10x^2 - 8x + 15x - 12 = 0$$

$$(2x + 3)(5x - 4) = 0$$

$$x = \frac{-3}{2} \quad x = \frac{4}{5}$$

6. Solve the equation.

$$5x^2 + 26x + 10 = 2x^2 + 3x - 4$$

$$3x^2 + 23x + 14 = 0$$

$$(3x + 2)(x + 7) = 0$$

$$x = \frac{-2}{3} \quad x = -7$$

7. Expand the following expression into standard form.

$$(2x + 5)(2x - 5)$$

$$4x^2 - 10x + 10x - 25$$

$$4x^2 - 25$$

8. Factor the expression.

$$x^2 + x - 20$$

$$(x + 5)(x - 4)$$